Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Request by Lackawanna County Department of Emergency Services for Waiver of the Commission's Rules to Deploy a 700 MHz Public Safety Interoperable Broadband Network That Can Be Integrated into the Public-Private Partnership	)	PS Docket No. 06-229

EXPEDITED REQUEST FOR WAIVER

Pursuant to Section 1.925(b) of the Commission's rules, the Lackawanna County Department of Emergency Services (LAC EMS) respectfully requests that the Federal Communications Commission ("FCC/Commission") grant a waiver of its 700 MHz public safety early deployment rules to enable the construction and operation of a 700 MHz interoperable public safety broadband network. The requested waiver is consistent with the 21 public safety petitions granted by the Commission in its recent *Waiver Order*[1] that allows for early deployment of public safety broadband networks in the 700 MHz Band Class 14. Thus, the requested waiver will serve the public interest by improving communications for first responders today without sacrificing any of the policy goals the Commission is seeking to achieve in its 700 MHz rulemaking.

[1] *See* Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks, PS Docket 06-229, *Order*, FCC 10-xx (rel. May 12, 2010)("*Waiver Order*")(granting waivers for: Adams County, CO, Alabama, Boston, MA, Northern California Consortium (Oakland, San Francisco, and San Jose), Charlotte, NC, Chesapeake, VA, District of Columbia, Hawaii and Counties of Maui, Hawaii, Kauai, and City and County of Honolulu, Iowa, Los Angeles County, Mesa, AZ and TOPAZ Regional Wireless Cooperative Mississippi, New Jersey, New Mexico, New York City, New York State, Oregon, Pembroke Pines, FL, San Antonio, TX, Seattle, WA, Wisconsin Consortium (Calumet, Outagamie and Winnebago Counties)).

LAC EMS has identified public safety interoperable broadband services as a priority and is prepared to make the capital investment necessary to deploy a network as quickly as possible in the 700 MHz public safety broadband spectrum. As demonstrated below, our stand-alone network will meet the technical specifications the FCC has proposed in the *Waiver Order* and can be integrated into a future interoperable National Public Safety Broadband Network. LAC EMS asks the Commission to act quickly on this request for waiver, as it is consistent with Commission's *Waiver Order*.[2] Grant of the waiver will enable rapid public safety broadband deployment in Band Class 14 in the 700 MHz band, while the network contemplated by the Commission remains years from deployment.

I. INTRODUCTION

Over the last few years, the Commission has taken significant steps to advance nationwide interoperable public safety broadband communications. Despite these efforts, Auction 73 did not result in a winning bidder for the Upper 700 MHz D Block license. Yet there is an urgent need to provide wireless broadband to our first responders. LAC EMS stands ready to commit the resources to put this critical 700 MHz spectrum to use and deploy interoperable Long Term Evolution ("LTE") public safety broadband systems that could later be integrated into a nationwide public safety broadband solution, which is consistent with the *Waiver Order*.[3] Thereby, allowing early deployments "to take advantage of the current and imminent development of 4G technology by commercial providers, which will provide the technological basis for deployment in the 700 MHz band beginning later this year."[4]

---

[2] *See Id.* at ¶ 68 (stating [H]owever, we expect the Bureau will be able to act on future waiver requests quickly and consistent with our decision here, . . .).

[3] *Id.* at ¶ 40.

[4] *Id.* at ¶ 10.

In the *Second Report & Order*, the Commission recognized the need to balance two important goals as it crafted the 700 MHz public safety broadband policy: (1) foster a public-private solution to develop nationwide interoperable public safety broadband communications; and (2) enable jurisdictions with available resources to deploy public safety broadband systems on an accelerated basis in some circumstances.[5] As to the second goal, though the Commission granted the D Block licensee the "exclusive right" to build out the 700 MHz commercial/public safety broadband network (the "Shared Wireless Broadband Network"),[6] it created two exceptions to this policy: (1) public safety entities were permitted to undertake an earlier build-out than would be provided for in the Network Sharing Agreement ("NSA"), with the public safety entities entitled to compensation up to the amount the D Block licensee would have incurred if had it constructed the network itself; and (2) public safety could build their own broadband networks in areas not included in the NSA.[7] Thus, the current early deployment options are premised on D Block licensing and adoption of the NSA. With no D Block licensee and no NSA, and in any event with deployment years away, today there is no clear path for public safety entities in need of broadband solutions.

To that end, the Commission has recently clarified that jurisdictions may begin early deployments so long as they meet the technical requirements for 700 MHz public safety systems and a commitment is made to facilitate roaming and interoperability with the National Public Safety Broadband Network.[8]

---

[5] *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Report and Order, 22 FCC Rcd 15289 (2007) ("*Second Report & Order*").

[6] *Id.* at ¶ 470.

[7] *Id.* at ¶¶ 471-84.

[8] *Waiver Order* at ¶ 10.

II. LAC EMS NEEDS BETTER PUBLIC SAFETY BROADBAND COMMUNICATIONS AND IS PREPARED TO DEVOTE RESOURCES TO DEPLOY AN INTEROPERABLE NETWORK IN THE 700 MHZ BAND.

In LAC EMS, there is a dire need for the broadband services that a newly-deployed 700 MHz public safety broadband system would supply:

- The City Police and Fire Departments are forced to do without broadband wireless communications or fund prohibitively high recurring monthly charges for commercial wireless services. Because of the lack of the needed Public Safety oriented broadband wireless connectivity, police officers must return to their district stations to access routine criminal justice information. In addition, 700MHz access from police vehicles will enable access to schools and other key video surveillance feeds for improved situational awareness in critical situations. This information would be readily available to officers in the field if broadband data access was available.

- LAC EMS firefighters lack connectivity to wireless broadband service for all front line Fire Department Companies as these commercial services are too costly. With a Public Safety Wireless Network, firefighters could access real-time full-motion video capabilities to provide situational information to other first responders, while en-route or at the scene, as well as to supporting Companies in response to an emergency. In addition, instead of having to wait for important site information to be printed before the apparatus leaves the station, GIS information can be made available on site and on demand, enabling faster response and improved safety for firefighters while en route and while on a scene.

- Automatic vehicle locators can be effectively implemented on a 700MHz system, for improved dispatch response times for public safety units, where the closest unit to a scene is located. In addition, the safety of the officers is improved, because the 911 center is aware of where the public safety officers are located and who can provide the most effective backup in the event of difficult situations.

- The 700MHz system can support VoIP extension, which can be used as a secondary or alternate communication system to the land mobile radio. This enables encrypted communication where stealth operations are required, as well as provides an alternative communication capability in the event of the failure of the primary LMR system.

- With broadband wireless communications resources available to the First Responder in LAC EMS:

    - Police officers would know quickly and silently that the vehicle they are stopping is stolen, know that the individual they are interviewing is wanted or dangerous,

be able to conduct photo lineups of suspects while still at the crime scene, and be able to access web-enabled surveillance cameras in public facilities to gain intelligence critical to the safe resolution of blockaded or hostage incidents;
- Firefighters would know which routes were blocked due to construction or accidents, which hydrants are out of service, and what hazardous conditions exist as soon as the data is updated by Police, Water Departments and Building Inspectors;
- Medics would be able to stream patient's vitals and video of the patient to the Emergency Rooms, where the doctors would be able to better and more quickly diagnose and issue orders for treatment while the ambulance is en-route to the hospital; and
- Emergency Managers would be able to receive real-time data and video from incident sites, teleconference with the Incident Commanders, and quickly share critical information, and mobilize essential resources to the ensure the swift and safe resolution of the emergency situation.

LAC EMS is prepared to deploy a public safety broadband network in the 700 MHz band in the near-term future. Deployment of such a network in LAC EMS will enhance day-to-day, task force and mutual aid response through support of a full spectrum of interoperable IP multi-media applications, including:

- Streaming video (surveillance, remote monitoring)
- Digital Imaging
- Automatic Vehicle Location
- Computer Aided Dispatching
- Email
- Mapping/GIS
- Remote Database Access
- Report Management System Access
- Text Messaging
- Telemetry/Remote Diagnostics
- Web Access

A broadband public safety network in LAC EMS will support applications that currently cannot be supported over existing narrowband or wideband wireless data technologies. Tasks that require the consumption of substantial time to communicate between dispatchers and other officers on narrowband voice systems (*e.g.*, database lookups and dispatch messaging) could be off-loaded to broadband spectrum, significantly reducing narrowband channel load. In addition,

allowing police officers, for example, to have remote access to databases (*e.g.*, DMV, warrants, missing persons and stolen vehicle databases, etc.), remote form entry and reporting and web access will enhance public safety by increasing officer efficiency, reducing paperwork and allow officers to spend more of their time on patrol.

Broadband networks will allow mission-critical information to be exchanged in real-time, anytime, anywhere. Distribution of images (floor plans, mug shots, incident stills), videos (surveillance feeds, on-scene video), messaging, access to incident management databases provide a common operating picture and access to information from the field, enhancing both incident response and first responder safety. Finally, broadband networks will allow for the secure, easy and interoperable sharing of information (voice, video and multi-media data) among members of a task force.

To realize these benefits, however, we need the Commission's authorization to operate our own network until it can be integrated into the larger National Public Safety Broadband Network. We believe installation would begin in late 2010 and be completed by first quarter 2011. Thus, the public interest would be served if the Commission grants the waiver requested herein, we request that favorable action on this request be taken expeditiously.

III. THE REQUESTED WAIVER IS IN THE PUBLIC INTEREST AND SHOULD BE GRANTED.

The public interest will be served by allowing LAC EMS to engage in early deployment. To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that (1) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest, or (2) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be

inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.[9]

Under either of these standards, the requested waiver allowing LAC EMS to deploy a public safety broadband network in advance of the National Public Safety Broadband Network is justified.

A. Grant of the Waiver Will Enable LAC EMS to Deploy an Interoperable Broadband Network to Serve First Responders.

The tragic events of September 11, 2001 and Hurricane Katrina made clear that public safety entities need more interoperable communications capabilities. The reality is that the deployment of a nationwide network from which local public safety entities can obtain broadband services is likely years away. LAC EMS is willing to commit resources to bridge this gap so that its first responders can utilize broadband technology to protect life and property immediately.

While we wait for resolution of the Commission's proceeding, the public interest requires that local authorities like LAC EMS be allowed to deploy their own interoperable, broadband public safety communications networks, as was recently granted to the 21 jurisdictions in the *Waiver Order*. In these unique circumstances, waiver of the rules limiting such deployment to Band Class 14 of the 700 MHz Block will serve the public interest.

B. The Network Will Be Robust and Will Satisfy the Technical Specifications Proposed by the Commission in the *Waiver Order*.

LTE is a commercial open standard technology which is being deployed by commercial wireless operators in the commercial portions of the 700 MHz band today. LAC EMS believes

[9] 47 C.F.R. § 1.925(b)(3). Waiver applicants face a high hurdle and must plead with particularity the facts and circumstances that warrant a waiver. *WAIT Radio v. FCC*, 413 F.2d 1153, 1157 (D.C. Cir. 1969) (*WAIT Radio*), *aff'd*, 459 F.2d 1203 (1973), *cert. denied*, 409 U.S. 1027 (1972).

that the selection of LTE as the common air interface technology for use in the public safety 700 MHz band as being an essential first step towards achieving the goal of nationwide interoperability. LAC EMS is planning deployment of a LTE network to support public safety operations. This LTE system will be deployed to operate on a paired assignment of 5 MHz wide channels in the public safety broadband block between 793-798 MHz for mobile transmission and 763-768 MHz for base station transmission. At a minimum, the equipment operating in the band will be compliant with Band Class 14 as specified in the 3GPP Release 8 standards.

Moreover, at a minimum, our LTE system deployed in the Public Safety Broadband Block will initially support the applications specified in the *Waiver Order*: (1) Internet access, (2) VPN access to any authorized site and to home networks, (3) a status or information "homepage," (4) access to responders under the Incident Command System, and (5) field-based server applications.[10] In addition, we agree with the Commission, public safety, equipment manufacturers and commercial wireless service providers that roaming must be a "fundamental requirement."[11] Thus, we will support roaming to all 700 MHz Band Class 14 public safety operators and support roaming to future regional, state, and Tribal public safety operators as specified in the *Waiver Order*.[12] Finally, we will adhere to the technical criteria that the Emergency Response Interoperability Center establishes via Commission rules.[13]

IV. CONCLUSION

The Commission would significantly advance the cause of public safety by allowing LAC EMS to deploy its own public safety broadband network in Band Class 14 that would operate until a National Public Safety Broadband Network is established in the 700 MHz band.

---

[10] *Waiver Order* at ¶ 46.

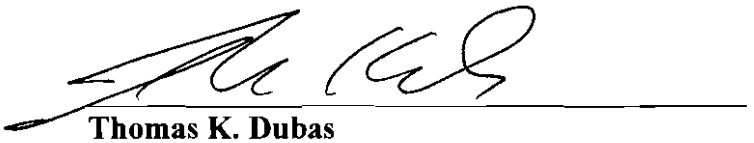
[11] *Id.* at ¶45.

[12] *Id.*

[13] *Id.* at ¶ 36.

LAC EMS stands ready to begin deployment of life-saving broadband services, and respectfully requests that the Commission promptly allow it to begin by granting the waiver as requested herein.

Respectfully submitted,



Thomas K. Dubas
Director of Emergency Services

June 16, 2010